

1.(AMENDED) A positioning system for use in adjusting the position of a

workpiece, comprising:

a light source for directing a light beam onto the top surface of said workpiece; and,

a detector coupled to said light transmitter for detecting an image of said light beam received by said workpiece, and for processing a deviation direction and a deviation amount based on the image of said light beam shifted on the surface of said workpiece.

5.(AMENDED) The system of claim 1, wherein said light source comprises a laser diode.

7.(AMENDED) A method for adjusting the vertical position of a workpiece, said method comprising the steps of:

transmitting a light beam onto the top surface of said workpiece at a predetermined angle relative to a normal axis associated with said workpiece;

detecting the light beam projected on the top surface of said workpiece;

detecting a lateral shift of said detected light beam on the top surface of said workpiece; and,

converting said detected lateral shift to a corresponding vertical distance using trigonometry.

ay 9.(AMENDED) The method of claim 7, wherein the step of detecting said detected light beam further comprises the steps of:

monitoring a boundary of said detected light beam;

generating signals representing positions of said boundary; and,

evaluating said signals for determining a center point of said boundary.

10.(AMENDED) A positioning system for use in adjusting the position of a workpiece, comprising:

a light generating means for projecting a light beam onto the top surface of said workpiece at a predetermined angle;

evl a video capturing means for detecting the light beam received on said workpiece and for converting said detected light beam into electrical signals; and,

cs a computer means for processing a deviation direction and a deviation amount based on said detected light beam shifted on the surface of said workpiece.

as 13.(AMENDED) The system of claim 10, wherein said computer means determines a lateral shift direction and an amount of lateral displacement of said projected light beam within the surface of said workpiece.

14.(AMENDED) The system of claim 10, wherein said light generating means comprises a laser diode.